

# 2001 Biennial Energy Report

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*Issues and Analyses for the  
Washington State Legislature*



W A S H I N G T O N   S T A T E

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Office of Trade & Economic Development

Martha Choe  
Director

January 2001

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*Office of Trade and Economic Development  
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The Washington Office of Trade & Economic Development, Energy Division provides the Governor, Legislature, and other state and local government entities with information, analysis, and expert testimony to facilitate the inclusion of public interest criteria into state, regional, and national energy policy; develops, collects, and analyzes data on energy resources; develops and represents the state's energy interests in external policy forums; prepares the state to respond to petroleum and electricity supply shortages; and manages federal energy grants.

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The year 2000 saw energy return to front-page headlines. Increasing economic prosperity and tight crude oil supplies drove retail gasoline prices sharply higher. Disruptions in supply and early summer runoff coupled with a dysfunctional California electricity market meant that some industrial and institutional customers, and Washington utilities faced spot market prices of more than 70¢ per kilowatt hour of electricity during the summer. Natural gas prices nearly doubled. At the same time, the Northwest became concerned about the increasing risk of electricity disruptions because of declining energy conservation efforts and lack of new power plant construction. This 2001 Biennial Report to the Legislature provides background information on many of the major energy issues facing the state over the next two years.

**Chapter 1** focuses on the electrical system in Washington and the Northwest. The chapter begins with the executive summary of the *Study of Western Power Market Prices Summer 2000*, an analysis by the Northwest Power Planning Council (NWPPC) of the factors that contributed to the major and largely unanticipated summer price run up. The Council's summary includes recommendations on how to lessen such major price disruptions through changes to market structure, risk management, and near-term demand management strategies.

The next section of Chapter 1 describes the proposed reconfiguration of the control and operation of the Northwest transmission grid including both a brief summary and a more detailed description of transmission planning over the last several years. This section is followed by an analysis of the numerous issues facing the Bonneville Power Administration including power contract subscription and pricing, fish and power issues, retention of regional electricity benefits, and related topics. We then discuss the increasingly important role that demand-side management can have in electricity peak load control and electricity supply and provide some examples of successful demand-side

programs. The chapter concludes with a summary of the relative costs of meeting new electricity load through energy efficiency, natural gas-fired combined-cycle combustion turbines, wind turbines, and other commercial technologies. It also lists the new power facilities that were added or upgraded during the 1990's.

Petroleum is by far the largest share of the state's energy use accounting for 45% of our primary energy consumption. **Chapter 2** examines the recent history of and influences on the world crude oil market and the potential impacts on gasoline prices in Washington State. The chapter also discusses the supply effects of the 1999 Olympic pipeline explosion, and recent oil industry mergers.

**Chapter 3** looks at natural gas pricing, the possible impacts of increasing natural gas demand, (especially by new electric generating facilities) on supply adequacy and price, and natural gas pipeline issues.

**Chapter 4** describes the state's role in petroleum and electricity energy emergency planning and response. Both the 1999 Olympic Pipeline explosion in Bellingham and NWPPC's analysis of the increasing probability of winter electricity emergencies underscore the need to better understand energy emergencies, and our response to those emergencies.

**Chapter 5** discusses the increasingly challenging issue of greenhouse gas emissions from fossil fuel combustion and use and the possible impacts of global climate change on the Pacific Northwest. It provides information on the state's greenhouse gas emissions, current research on climate impacts in the Northwest, and efforts to increase awareness and action on climate change in Washington and other states.

Finally, **Chapter 6** updates 24 key energy indicators that were first included in the 1999 Biennial Energy Report. Often the energy industry and policymakers find themselves responding to the events of the last few

months or year without understanding the historical context of energy in Washington State's economy. These indicators are specifically designed to provide some of that broader, longer-term perspective on trends in state energy use and intensity, expenditures, prices, and the role of energy in the state's economy.

Appendix A and B contain the statutes governing the state energy office (Energy Division) and state energy emergency powers.

## Note on State Energy Policy and the State Energy Strategy (SES)

**P**revious Biennial Reports (1995, 1997, and 1999), included information on the status of recommendations set forth in the 1993 State Energy Strategy (SES).<sup>1</sup> The 2001 Biennial Report does not contain such a status account. While the SES continues to serve as "primary guidance for implementation of the state's energy policy,"<sup>2</sup> we believe that a detailed update in this report would be of limited value given that dramatic changes in the energy landscape since 1993 warrant a full examination and update of the SES. At the time of the writing of this report, the OTED Energy Division is working with the Governor's Office to set up a process to look at this new energy landscape and to revise and update the SES. We expect to begin this process after the end of the 2001 legislative session.

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<sup>1</sup> Washington Energy Strategy Committee, Washington State Energy Strategy: An Invitation to Action, January 1993, WSEO 92-158.

<sup>2</sup> RCW 43.21F.015(7)